

City of  Durham.

ANNUAL REPORT

OF THE

HEALTH DEPARTMENT

FOR 1920.

A. B. MITCHELL, M.C, M.B., Ch.B.

MEDICAL OFFICER OF HEALTH.

DURHAM :

GEO. BAILES, PRINTER, &C., 24, SILVER STREET.

1921.

Durham,

18th April, 1921.

*To the Chairman and Members of the Public Health
Committee.*

Gentlemen,

I beg to lay before you the Annual Report for 1920 on the health of the City. In order to ensure continuity I have undertaken the report for the whole year although I did not commence duty until 1st April, 1920.

As regards the report your attention is particularly directed to the general death rate of 15·2 per 1,000 which, although it is the lowest since 1912, is considerably above that for England generally, and to the excessive infantile mortality of 104·6 per 1,000 births. Without going into details here, I am of opinion that the main factors in producing this mortality are the bad housing conditions combined with much overcrowding under which many of our citizens live.

I beg to remain, Gentlemen,

Your obedient Servant,

A. B. MITCHELL.

ANNUAL REPORT.

Natural and Social Conditions of the District.

1. POPULATION.

At the 1911 Census the population was found to be 17,750. For the year 1920 the Registrar General has estimated the population of the City, for Births and for Deaths, at 16,717.

2. PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

The area of the District (inclusive of area covered by water) is 1,065 acres.

The District is a very hilly one. The subsoil is mainly of clay, but owing to the natural fall towards the river there is not much dampness of soil.

3. SOCIAL CONDITIONS, Etc.

The chief occupation of the inhabitants is mining. Many of the miners live in the town and work at the collieries surrounding the town. The miners are subject to the usual diseases connected with that industry.

4. HOSPITALS AND OTHER GRATUITOUS MEDICAL RELIEF.

The Durham County Hospital continues to provide treatment for Surgical and Medical cases in a very admirable way. During 1920 out-patient departments were started for Diseases of the Ear, Nose and Throat and for Diseases of the Eyes. The provision of a small Maternity Hospital would be an inestimable boon to the community.

The Tuberculosis Dispensary under the Durham County Council, the Maternity and Child Welfare Clinics, the School Clinic and the Samaritan Nurses' Association are all in active operation and do useful work in their various spheres.

VITAL STATISTICS.

BIRTH-RATE.

During 1920, 497 births were registered within the City as compared with 339 births for 1919, and giving a birth-rate of 29·7 per 1,000 population.

SEX AND LEGITIMACY.

Of the total of 497 births, 258 were males and 239 females; 30 births were illegitimate, 17 males and 13 females, a percentage of 6 as compared with 5·9 in 1919.

COMPARISON OF BIRTH-RATE.

England and Wales, 1920	25·4	} per 1000 of the popula- tion being provisional figures.
96 Great Towns including London, 1920 ...	26·2	
148 Smaller Towns, 1920.....	24·9	
London, 1920	26·5	
County of Durham, 1920	30·0	
DURHAM, 1920	29·7	

COMPARISON OF DURHAM BIRTH-RATE WITH PREVIOUS YEARS.

1894—1903	28·0	per 1,000 population.	
1904	29·8	„	„
1905	27·1	„	„
1906	29·4	„	„
1907	25·8	„	„
1908	26·0	„	„
1909	25·2	„	„
1910	25·8	„	„
1911	26·8	„	„
1912	24·7	„	„
1913	24·7	„	„
1914	26·4	„	„
1915	20·9	„	„
1916	23·7	„	„
1917	17·9	„	„
1918	17·9	„	„
1919	20·2	„	„
1920	29·7	„	„

COMMENTS ON BIRTH STATISTICS.

The Birth Rate of Durham, 29·7 per 1,000, is the highest recorded since 1904 and is substantially higher than that of England generally.

DEATH STATISTICS.

DEATH-RATE.

During 1920, 315 deaths were registered as having occurred within the City; 84 being non-resident were transferred to their own area; 23 deaths occurring outside the area were transferred to Durham, making a nett total for the year of 254 deaths, equivalent to an annual death-rate of 15·2 per 1,000 population, as compared to a death-rate of 17·2 for 1919.

SEX DISTRIBUTION.

Of the deaths 135 were males and 119 were females.

TRANSFERABLE DEATHS.

Of the 23 deaths transferred to the City, the greater proportion occurred in institutions, including:—

County Lunatic Asylum	5
Sherburn Hospital	5
Houghall Isolation Hospital	2
Royal Victoria Infirmary, Newcastle	1

CORONERS' INQUESTS.

During 1920 inquests were held on 13 deaths, this being 5·1 % of the total deaths.

UNCERTIFIED DEATHS.

During 1920, 24 deaths or 9·4 % of the total deaths were returned as uncertified.

NATURAL INCREASE OF THE POPULATION.

The number of births in excess of deaths is 243 as compared with 63 in 1919.

COMPARISON OF DEATH-RATE,

With England generally.

General Death-rate during 1920:—

England and Wales	12·4 per 1,000	} Provisional figures.
96 Great Towns including		
London	12·5 „	
148 Smaller Towns	11·3 „	
London	12·4 „	
County of Durham	12·3 „	
CITY OF DURHAM ...	15·2 „	

With previous Death-Rates in Durham.

1894—1903	19·8	per 1,000 population.
1904	17·7	„ „
1905	20·8	„ „
1906	16·0	„ „
1907	17·2	„ „
1908	17·7	„ „
1909	16·6	„ „
1910	15·9	„ „
1911	17·0	„ „
1912	14·0	„ „
1913	16·3	„ „
1914	18·6	„ „
1915	19·7	„ „
1916	16·4	„ „
1917	21·9	„ „
1918	24·0	„ „
1919	17·2	„ „
1920	15·2	„ „

COMMENTS ON DEATH-RATE STATISTICS.

The death-rate is higher than England generally. The causes of the high death-rate are due mostly to high incidence of—

- (1) Pneumonia and Bronchitis, causing 53 deaths or a rate of 3·1 per 1,000 population.
- (2) Tuberculosis, causing 19 deaths or a rate of 1·1 per 1,000 population.
- (3) Diarrhœa, etc. (under 2 years), causing 5 deaths.
- (4) Congenital Debility in infants, causing 20 deaths.
- (5) Violence apart from suicide, causing 12 deaths.

INFANTILE MORTALITY, 1920.

52 deaths in infants under one year of age were registered, as compared with 35 in the previous year, giving an infantile mortality rate for the year of 104·6 per 1,000 births.

Comparison of Infantile Mortality in Durham for 1920 with that of England generally.

	Rate per 1,000 Births.	
England and Wales	80	} Provisional figures.
96 Great Towns including London...	85	
146 Smaller Towns	80	
London	75	
County of Durham	106	
DURHAM	104·6	

Comparison of Infantile Mortality in Durham for 1920 with that of previous years in Durham.

Year.	Rate per 1000 Births.	Year.	Rate per 1000 Births.
1904	155·4	1913	124·0
1905	192·5	1914	148·0
1906	154·0	1915	168·0
1907	137·3	1916	80·2
1908	175·9	1917	121·8
1909	135·9	1918	154·6
1910	117·0	1919	103·2
1911	150·0	1920	104·6
1912	101·1		

DETAILED INFORMATION REGARDING INFANTILE MORTALITY.

Consideration of the above tables shows that the local infantile mortality for 1920 was considerably higher than the rate for the country generally and for that of 148 smaller towns which compare with Durham in population.

The local infantile mortality may be divided into three well defined groups of cases—

- (1) Diarrhœa and Enteritis—3 cases or 5·7 % of the total.
- (2) Debility, Atrophy, etc.—20 cases or 38·4 % of the total.
- (3) Pneumonia and Bronchitis—10 cases or 19·2 % of the total.

The high mortality-rate is attributed mostly to the over crowded conditions in which many of the babies are brought up.

ZYMOTIC MORTALITY.

The following table shows the deaths from the seven principal Zymotic Diseases during the past five years:—

	1920.	1919.	1918.	1917.	1916.
Enteric Fever	Nil.	Nil.	Nil.	Nil.	Nil.
Small-pox	Nil.	Nil.	Nil.	Nil.	Nil.
Measles	4	Nil.	Nil.	7	Nil.
Whooping Cough	Nil.	Nil.	4	5	2
Diphtheria and Croup...	1	3	1	1	2
Scarlet Fever	2	Nil.	Nil.	Nil.	Nil.
*Diarrhœa and Enteritis					
(under 2 years)	5	3	2	14	7
	—	—	—	—	—
Total Deaths	12	6	7	27	11
Zymotic death-rate per 1000	0·72	0·36	0·5	1·9	0·8

* Only cases of Diarrhœa under two years of age are included here.

DEATHS FROM TUBERCULOSIS.

16 deaths were due to Pulmonary Tuberculosis, 7 males and 9 females, and 3 were due to other forms of Tuberculous disease, 1 male and 2 females.

Comparison with previous years.

Year.	No. of Deaths from Pulmonary Tuberculosis.		Death-rate per 1000 population.
1911	13	..... 0·7
1912	18	..... 1·0
1913	15	..... 0·8
1914	15	..... 0·8
1915	20	..... 1·1
1916	20	..... 1·4
1917	22	..... 1·6
1918	26	..... 1·9
1919	24	..... 1·4
1920	16	..... 1·0

Year.	No. of Deaths from other forms of Tuberculosis.		Death-rate per 1000 population.
1911	8	..... 0·4
1912	4	..... 0·2
1913	5	..... 0·2
1914	8	..... 0·4
1915	4	..... 0·2
1916	10	..... 0·7
1917	5	..... 0·4
1918	4	..... 0·3
1919	3	..... 0·1
1920	3	..... 0·2

OTHER CAUSES OF DEATH.

CANCER.

This caused 15 deaths, equivalent to an annual death-rate of 0·9.

HEART DISEASE.

During 1920 various forms of Heart Disease accounted for 31 deaths, equal to a death-rate per 1,000 of 1·9.

VIOLENCE.

There were 12 deaths caused by violence apart from suicide during 1920, equal to a death-rate per 1,000 of 0·7.

Sanitary Circumstances of the District.

WATER SUPPLY.

The Weardale and Consett Water Company supplies water to the City. The source is mainly upland surface water, free from contamination. It is a comparatively soft water. The supply is ample and constant.

RIVERS AND STREAMS.

The River Wear flows through the town. It is free from pollution and its course is kept clean.

DRAINAGE AND SEWERAGE.

Drainage and sewage is disposed of at the Corporation Sewage Works. The arrangement is good and sufficient for the needs of the district.

CLOSET ACCOMMODATION

The closet accommodation is mostly of the water-closet type. The latest information gives the respective numbers as follows for 1920:—

Water-closets	2,756
Ash-closets	93
Ashpit privies	447

Everything possible is being done to further the conversion of ashpit privies and ash-closets into water-closets.

The total number of ashpit privies converted into water-closets during the year was 50.

SCAVENGING.

The scavenging of the City is in the department of the City Surveyor.

The difficulty of labour and the distance of the tip from the City makes the question of removal of night-soil and refuse a very difficult one.

The ashpits are cleaned out once a week. The question of the adoption of a motor lorry for this purpose is receiving attention.

The cleaning of the streets is difficult on account of their cobbled condition.

SANITARY INSPECTION OF THE DISTRICT.

This has been done in a careful and systematic manner, as can be seen by the report of the Sanitary Inspector which includes all visits paid by the Health Department during the year, the number of notices served and the results of the services of these notices.

Summary of work done in the Inspector of Nuisances'
Department during the year 1920.

	No. of Visits for Inspection.	Number of Informal written Notices by Inspector.	Number of Formal Notices by order of Authority.	Number of Nuisances abated after Notice.
I. PUBLIC HEALTH ACTS.				
Dwelling-houses and Schools—				
Foul Conditions... ..	302	151	...	151
Structural Defects	794	466	11	457
Overcrowding	4	2	...	2
Lodging-houses	48	8	..	8
Dairies and Milkshops	44	4	...	4
Cowsheds	24	3	...	3
Bakehouses	96	2	..	2
Slaughter-houses	52	59	...	59
Ashpits and Privies	274	137	...	137
Deposits of Refuse and Manure...	190	95	...	95
Waterclosets	428	214	25	214
Defective Yard Paving	76	38	..	38
House Drainage—				
No Disconnection from Sewer	44	22	...	22
Other Faults	406	203	...	203
Water Supply	8	4	...	4
Pigsties	2	1	...	1
Animals improperly kept	30	15	...	15
Offensive Trades	52	...	...	...
Smoke Nuisance	18	9	...	9
Other Nuisances	262	131	11	131*
Cross Channels	20	10	...	10
Waste Pipes	36	18	...	18
Drain discharging into river	6	1	...	1
Defective eaves, gutters, and fall pipes	128	64	...	64
Totals	3344	1657	47	1648

* Defective window cords and lack of proper Sanitary Dust Bins, etc.

II. WATER, FOOD, AND DRUGS.

				Number.
Seizures of Unwholesome Food				21
				Lbs.
Tubercular Beef	1848	} Unsound Food or in a state of Putrefaction
Frozen Beef	...	...	2833
„ Tripe	...	...	150
„ Mutton	...	...	45 $\frac{1}{4}$
			4876 $\frac{1}{4}$	
Fish	70	} Unsound Food or in a state of Putrefaction
Cheese	...	...	125
Butter	...	...	35 $\frac{1}{2}$
Corned Beef, Tinned Milk and Fruit	...	...	23
Tomatoes	...	...	2436
Total	7565 $\frac{3}{4}$	

III. PRECAUTIONS AGAINST INFECTIOUS DISEASE.

Lots of Infectious Bedding stoved or destroyed	...	148
Houses disinfected after Infectious Disease	..	97
Schools do. do.	...	I

IV. GENERAL.

Number of New Houses erected during the year	...	nil.
Ash privies converted into Water-closets	..	50
Total number of Water-closets in District	...	2756
Do. Ash-closets do.	...	93
Do. Ash-pit privies do.	...	447

G. W. RAGG,

Inspector of Nuisances

January 10th, 1921.

PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS OR REGULATIONS.

(a) Lodging Houses.

These are four in number. None of the lodging houses have been built as such, but are converted dwelling houses. They are regularly inspected and usually found in a clean and sanitary condition. It has been necessary to serve notices to cleanse, to remedy structural defects and to destroy bedding.

(b) Slaughter Houses.

These number thirteen (see below under Food).

(c) Dairies and Milkshops.

These number six cowkeepers and purveyors of milk, three dairies and 10 purveyors of milk (see below under Milk Supply).

(d) Offensive Trades.

Fish frying is the only offensive trade carried on in the district which comes under the schedule. At the end of the year there were thirteen shops on the register, and in most cases the cooking apparatus is fitted with a specially designed close fitting cover to arrest the effluvia given off during the frying process.

(e) Schools.

The sanitary condition and water supply is satisfactory. There was no occasion for closure of or exclusion from school under Memorandum 1909. One school was disinfected on account of infectious disease.

FOOD.

(a) MILK SUPPLY.

There are within the City 3 registered milk-shops, 10 dairies and 6 cow-sheds, all of which were frequently visited by the sanitary staff during the past year, in pursuance of the Dairies, Cow-sheds and Milk-shops Orders, and were found in a good and clean condition with one exception where it was found necessary to serve notice to cleanse.

MILK AND CREAM REGULATIONS, 1912-13.

During 1920 no action was taken under the above regulations, but 17 samples of milk were examined by the Public Analyst under the Sale of Food and Drugs Act.

MILK (MOTHERS AND CHILDREN'S) ORDER, 1919.

The arrangements under this order are carried out by the Maternity and Child Welfare Centre.

(b) OTHER FOODS.

1. Unsound Food and Food Inspection

All premises manufacturing, preparing, storing or exposing food for sale are under the supervision of the Sanitary Inspector who pays frequent visits. Proprietors of shops have, as a rule, been quick to draw the attention of the Sanitary Inspector to foods whenever there was any suspicion that the quality was poor or the food unfit for human consumption.

During the past year the following foodstuffs were condemned as unfit for human consumption:—

Total seizures of food—21.

Tuberculous Beef	1848 lbs.
Frozen Beef	2833 „
Frozen Mutton	45½ „
Frozen Tripe	150 „

Fish	70 lbs.
Cheese	125 „
Butter	35½ „
Corned Beef, Tinned Milk and Fruit ...	23 „
Tomatoes	2436 „
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	7565½ lbs.

There were no cases of food poisoning reported in the district during the year.

2. Bakehouses.

The existing bakehouses, 22 in number, were found generally in good order and being conducted in a cleanly fashion, during the past year. There is one underground bakehouse.

3. Meat Inspection—Disease in Meat—Condition of Slaughter Houses, etc.

Meat inspection at or shortly after the time of slaughtering is difficult on account of the number of slaughter houses, but this is carried out as often as is practicable.

Most of the slaughter houses have got dwelling houses in close proximity to them and the approaches to them are bad, being either to the rear or the front of dwelling houses. They are managed as efficiently as the limitations of space and equipment will permit. There is no public abattoir in the district, but such, however, is strongly recommended, as soon as practicable.

During the year 4,876½ lbs. of meat were condemned as unfit for human consumption and destroyed under Sec. 117, P.H.A., 1875. Of this meat 1848 lbs. were tuberculous.

Statement of number of slaughter houses in use at the dates mentioned:—

	In 1914.	In. Jan., 1920.	In Dec., 1920.
Registered	14	14	13
Licensed	14	14	13
	—	—	—
Total	14	14	13

(c) SALE OF FOOD AND DRUGS ACT.

The following samples were taken and analysed during the year:—

Milk	17 Samples
Borax	5 „
Coffee	3 „
Ginger, ground	4 „
Pepper	1 „
Malt Vinegar	3 „
Baking Powder	4 „
Rum	2 „
Whisky	3 „
Yeast	4 „

The following samples were found to be adulterated or below standard:—

New Milk	4 Samples.
*Borax	3 „
Malt Vinegar	1 „

* Contained Arsenic.

Proceedings were taken in the case of two of the borax samples; in each instance a fine of 10/- and costs was inflicted. Four samples of milk were found to be slightly below normal.

Prevalence and Control over Infectious Diseases.

I. INFECTIOUS DISEASES GENERALLY.

During 1920, 170 notifications were received by the Health Department.

The distribution of the cases was as follows:—

Scarlet Fever	91	notifications.
Diphtheria	8	„
Ophthalmia Neonatorum	7	„
Pneumonia	27	„
Pulmonary Tuberculosis	19	„
Other forms of Tuberculosis ...	5	„
Erysipelas	11	„
Puerperal Fever	1	„
Malaria	1	„
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Total	170	„

(For distribution according to age and locality see Appendix).

II. DETAILED STATEMENT OF INFECTIOUS DISEASES.

1. Scarlet Fever.

Scarlet Fever was prevalent during 1920, 91 cases being reported. A good many cases occurred in the early part, and again in the later part, but diminished towards the end of the year.

60 cases were treated at our Isolation Hospital. There was nothing about the cases to indicate any special source of infection.

2. Diphtheria.

There was very little Diphtheria during 1920, 8 cases being reported, with one fatal case. There was nothing in the distribution of age, ward or month to suggest any common ground for infection.

There are no special arrangements for the supply of antitoxin.

3. Ophthalmia Neonatorum.

7 cases were notified during the year, and good results were obtained by prompt treatment.

4. Pneumonia.

Pneumonia was fairly prevalent, 27 cases being reported. From the number of notifications it is obvious that every care is taken by the general practitioners to notify the Disease.

5. Tuberculosis.

19 cases of Pulmonary Tuberculosis and 5 cases of other forms of Tuberculous disease were notified. This is less than usual.

6. Erysipelas.

11 cases of Erysipelas were reported during the year. There was one fatal case.

7. Puerperal Fever.

One case was reported.

8. Malaria.

One case was notified in a returned soldier.

9. Small-Pox.

No case of Small-pox occurred during 1920.

10. Non-Notifiable Infectious Diseases.

There was no great prevalence of any of the non-notifiable infectious group of cases.

11 Notification of Tuberculosis.

All cases of Tuberculosis coming to the notice of practitioners are notified without delay.

12. Vaccination.

Vaccination is carried out by the Poor Law Medical Officer.

III. BACTERIOLOGICAL AIDS TO DIAGNOSIS.

Bacteriological aids to diagnosis are made use of freely. The examinations are made at the College of Medicine, Newcastle-on-Tyne, under the scheme of the Durham County Council. During 1920, 56 specimens were examined with the following results:—

	Positive.	Negative.	Total.
Diphtheria	3	16	19
Tuberculosis of the Lungs ...	10	26	36
Enteric Fever (Widal)	0	1	1
			<hr/> 56

IV. ISOLATION AND DISINFECTION.

Cases of Scarlet Fever are isolated at Gilesgate Fever Hospital.

Cases of Diphtheria and any cases of Scarlet Fever that cannot be accommodated at Gilesgate are isolated at Houghall Fever Hospital under the administration of the Durham Rural District Council and the expenses paid by the City Council.

Every case is visited by the Sanitary Inspector who advises as to precautions and himself carries out the disinfections necessary at the house.

V. CLEANSING OF VERMINOUS PERSONS AND THEIR BELONGINGS.

Public Baths are available. Any disinfection required is done at the disinfector at Houghall Hospital.

The acquisition of a disinfector for the City, which could be used for disinfecting clothing and bedding after infectious disease and for destroying vermin, is very strongly recommended.

Sanitary Administration.

I. SANITARY STAFF.

Staff.

Duties.

Medical Officer of Health...Sanitary administration.

Sanitary InspectorGeneral routine work of sanitary inspector, including supervision of office work, Housing inspection, Meat inspection, Disinfection, etc., etc.

II. ISOLATION HOSPITAL.

A. Accommodation for Infectious Diseases

(a) Small-Pox.

The City of Durham shares with neighbouring authorities the Small-pox Hospital at Shincliffe which contains 12 beds, with possibilities for expansion. There were no cases during the past year.

(b) Other Infectious Diseases.

The Isolation Hospital at Gilesgate Moor, belonging to the City, consists of one block sub-divided into four wards, two on each side of a small administration department consisting of kitchen, washhouse and staff accommodation. At present only cases of Scarlet Fever are accommodated at the Hospital. There is accommodation for 18 cases.

HOSPITAL RETURNS, 1920.

Cases of Scarlet Fever.

Remaining in Hospital, Dec. 31st, 1919	5
Admitted during 1920	60
Total under treatment during 1920	65
Died during 1920	1
Discharged during 1920	61
Remaining, Dec. 31st, 1920	3

The average time in hospital per patient was 6 weeks and 4 days.

There have been no return cases.

Sufficiency and Character of Hospital Accommodation for Infectious Diseases.

The accommodation at Gilesgate is sufficient as regards Scarlet Fever cases. During the year an additional six beds were provided and accommodated in a ward which had not previously been used.

The accommodation for the nursing staff is very cramped.

The arrangement which exists at present for the admission of cases of Diphtheria to Houghall Hospital is satisfactory.

Removal of Patients.

The ambulance at present in use is very unsatisfactory being old and out of repair. The provision of a better one is recommended.

During the year certain necessary repairs have been completed to the benefit of the Hospital. The whole building has been painted outside. Bed-side lockers have been provided at each bed and a discharge room has been furnished.

The staff of the Hospital consists of matron, probationer nurse and cook.

III. LOCAL ACTS.

The following is a list of the Local Acts, Special Local Orders and General Adoptive Acts in force in the City :—

Infectious Diseases (Notification) Act, 1889.

Infectious Diseases (Prevention) Act, 1890.

Public Health Act, 1875.

Public Health Acts Amendment Act, 1890, parts 2, 3, 4, and 5.

Public Health Acts Amendment Act, 1907, parts, 2, 3, (except sec. 48), 4, 5, 6, sections 79, 81 and 86 of part 7, parts 8, 9 and 10.

Private Streets Works Act, 1892.

Baths and Washhouses Acts.

Museums and Gymnasiums Act, 1891.

Housing.

1. GENERAL HOUSING CONDITIONS IN THE DISTRICT.

According to the latest information the number of houses in the district is 3,328.

No new houses were erected in 1920 and none were in course of erection at the end of the year.

Extent of Shortage of Houses

The population at the 1911 Census was 17,750 and there were 100 houses in the district empty at that time. The population at the middle of the year 1920 has been estimated by the Registrar General at 16,717 and every available house is occupied. In fact from recent inspections it is shown that there is a lot of overcrowding in the district and considerable shortage of houses.

Measures taken or contemplated to meet the Shortage.

Under the Housing and Town Planning Act, 1919, a form of survey was made out and it was considered that 450 houses were needed to meet the present demands.

The estimate on which the above requirement is based is as under—

	Houses.
To meet increase of population, due to natural causes from 1911 to 1922, at 4·5 persons per house	66
To replace people dehousing from insanitary areas and individual unfit houses	270
To reduce 27·2 per cent. of the population living at the time of 1911 Census at a greater rate than 2 persons per room, from an occupation rate of 6·3 to 4·5 persons per tenement	276
Total	612

Deduct—

No. of houses built since 1911	68	
No. of houses closed since 1911	3	
	---	65
		<hr/>
		547

Deduct—

No. of houses empty at 1911 Census	100	
		<hr/>
		447

As far as the scheme has gone, the houses will be of the following type:—

Houses with living room, scullery and 3 bedrooms ...	34	
Houses with parlour, living room, scullery and 3 bedrooms	138	
Types to be decided later	111	
Houses to be erected on insanitary areas once these are cleared, in accordance with scheme in con- templation, type not yet decided	167	
		<hr/>
		450

New ground has been acquired for the erection of the new houses at Sherburn Road, Whinney Hill and North Road. The houses on the Sherburn Road site are shortly to be started and are expected to be completed by July, 1922.

2. OVERCROWDING.

Extent.

From recent inspections of insanitary areas it is shown that there is a lot of overcrowding.

Cause of overcrowding.

The cause of the overcrowding is that during and since the war no new houses have been built. Many soldiers married in the early part of the war and have now families but no homes. The natural increase of the population in 1920 was 243.

Measures taken or contemplated to deal with overcrowding.

The scheme, of which particulars are given above, is intended to remedy the evil of overcrowding.

Principal cases of overcrowding and action taken.

As there are no empty houses whatsoever to be obtained in the City, it has not been possible to deal with any cases of overcrowding during the past year or to take any action.

3. FITNESS OF HOUSES.

General Standard of Housing in the District.

The number of houses in the City consisting of three rooms or less is very considerable. In addition to being below a reasonable standard even if they were in perfect condition, a large number of houses have been allowed to deteriorate in recent years.

General Character of the defects found to exist in Unfit Houses.

- (1) Dampness, either due to want of a damp-proof course or defects in the pointing or roof, is a common defect.
- (2) Many houses are badly lighted and ventilated.
- (3) The closet accommodation is often insufficient.
- (4) Most of the working class houses have no sinks.
- (5) Defective roofs.
- (6) Defective downspouting.
- (7) General disrepair.
- (8) Want of proper accommodation for storing food.
- (9) Lack of washing accommodation.

Many of the defects are due to the difficulty in procuring material and labour for repairs, more than to lack of proper management and supervision by owners.

Action taken under the Public Health Acts.

During the past year 608 notices were served by the Health Department under the Public Health Acts, with regard to structural defects and foul conditions in dwelling houses, 38 notices to repair defective yard paving and 131 notices to repair windows, provide sanitary dustbins, etc.

Action under the Housing Acts.

Systematic inspections have been made in certain parts of the City. During the year 218 inspections were made. The number of houses found defective was 115. It was necessary to serve 89 notices. All notices have been complied with. There have been no closing orders and no houses closed during the year.

Conditions so far as they affect Housing as regards Water Supply, Closet Accommodation, and Refuse Disposal, together with measures taken during the year in these matters.

- (a) No definite action has been taken as regards housing in 1920.
- (b) The water supply is sufficient for present needs.
- (c) Closet accommodation.

Conversions from privy ashpits to water-carriage are being carried out satisfactorily. In some cases the work has been done by the Sanitary Authority and the cost is being claimed from the owner.

- (d) Refuse disposal.

It is becoming very difficult to find suitable sites for the deposition of the refuse of the district. From a sanitary point of view it is obviously not disposing of the refuse to dump it on your neighbour's territory. The only remedy is to erect a destructor capable of dealing with the whole of the refuse of the district.

4. UNHEALTHY AREAS.

Under Part II. of the Housing Act of 1890 a survey has been made of the Elvet insanitary area and a schedule of defects made out and sent to the Ministry of Health.

V. BYE-LAWS RELATING TO HOUSES, TO HOUSES LET IN LODGINGS, AND TO TENTS, VANS, SHEDS, &c.

Bye-laws were made in 1920 for houses let in lodgings and allowed by the Ministry of Health.

APPENDICES.

HOUSING CONDITIONS.

STATISTICS.

Year ended 31st December, 1920.

1. GENERAL.

(1) Estimated population	16,717
(2) General death-rate	15·2
(3) Death-rate from tuberculosis	1·1
(4) Infantile mortality	104·6
(5) Number of dwelling houses of all classes	3,328
(6) Number of working-class dwelling houses	2,336
(7) Number of new working-class houses erected	Nil.

2. UNFIT DWELLING HOUSES,

(i) Inspection.

(1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	617
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(2) Number of dwelling houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	218
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	Nil.
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	89

(ii) Remedy of Defects without Service of formal Notices.

Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their officers	26
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(iii) Action under Statutory Powers.

A. Proceedings under Section 28 of the Housing, Town Planning, &c. Act, 1919.

(1) Number of dwelling houses in respect of which notices were served requiring repairs	115
(2) Number of dwelling houses which were rendered fit—	
(a) by owners	115
(b) by Local Authority in default of owners	Nil.
(3) Number of dwelling houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	Nil.

B. Proceedings under Public Health Acts.

(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied	466
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(2) Number of dwelling houses in which defects were remedied—

(a) by owners	457
(b) by Local Authority in default of owners	Nil

C. Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

(1) Number of representations made with a view to the making of Closing Orders	Nil.
(2) Number of dwelling houses in respect of which Closing Orders were made	Nil.
(3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit ...	Nil.
(4) Number of dwelling houses in respect of which Demolition Orders were made	Nil.
(5) Number of dwelling houses demolished in pursuance of Demolition Orders	Nil.

3. UNHEALTHY AREAS.

Areas represented to the Local Authority with a view to Improvement Schemes under (a), Part I., or (b), Part II., of the Act of 1890:—

(1) Name of area	Elvet area.
(2) Acreage	$7\frac{3}{4}$ acres.
(3) Number of working-class houses in area	187
(4) Number of working-class persons to be displaced	711

4.—Number of houses not complying with the building bye-laws erected with consent of Local Authority under Section 25 of the Housing, Town Planning, &c., Act, 1919

Nil.

5.—Staff engaged on housing work with, briefly, the duties of each officer... Sanitary Inspector—
general routine work.

TABLE I.—VITAL STATISTICS OF WHOLE DISTRICT DURING 1920 AND PREVIOUS YEARS.

Year.	Population estimated in the middle of each year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Uncor- rected Number.	Nett.		Number.	Rate.	of non- residents regis- tered in the district.	of residents not regis- tered in the district.	Under 1 year of age.		At all ages.	
			Number.	Rate.					Number.	Rate per 1000 nett Births.		
1	2	3	4	5	6	7	8	9	10	11	12	13
1915 ...	For Births } 17550 & Deaths }	373	367	20·9	379	21·5	52	20	62	168·0	347	19·7
1916 ...	For Births } 15802 For Deaths } 14524 }	...	374	23·7	...	...	...	...	30	80·2	239	16·4
1917 ...	For Births } 15574 For Deaths } 13971 }	...	279	17·9	...	...	...	...	34	121·8	307	21·9
1918 ...	For Births } 15489 For Deaths } 13824 }	...	278	17·9	...	...	...	...	43	154·6	332	24·0
1919 ...	For Births } 16746 For Deaths } 16076 }	...	339	20·2	...	...	...	...	35	103·2	276	17·2
1920 ..	For Births } 16717 & Deaths }	505	497	29·7	315	18·8	84	23	52	104·6	254	15·2

TABLE II.—CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1920.

Notifiable Disease.	Cases Notified in Whole District.							Total cases notified in each locality.								
	At all Ages.	At Ages—Years.						Framwellgate Ward.	Crossgate Ward.	Neville's Cross Ward.	St. Nicholas' Ward.	Elvet Ward.	Gillesgate Ward.	County Hospital.	Total.	
		Under 1	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.									65 and upwards.
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera—Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	8	...	2	5	1	...	...	...	...	2	4	1	...	1	8
Erysipelas	11	...	...	...	...	3	...	...	...	2	4	1	2	...	11
Scarlet Fever	91	...	7	70	13	1	...	...	5	29	15	7	20	11	91
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	1	...	...	...	...	1	...	...	...	...	...	...	1	...	1
Cerebro-Spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Polio-myelitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum	7	7	...	...	...	...	...	...	4	1	...	1	1	...	7
Pulmonary Tuberculosis	19	...	3	3	6	3	3	1	1	2	4	3	1	8	19	
Other forms of Tuberculosis	5	1	...	3	1	...	...	...	1	1	1	...	...	1	5
Pneumonia	27	...	...	10	9	6	1	1	1	9	4	3	1	5	27
Malaria	1	...	...	...	...	1	...	...	...	...	...	...	1	...	1
Totals	170	8	12	91	30	20	7	2	12	46	32	16	27	26	11	170

**TABLE III.—CAUSES OF, AND AGES AT, DEATH DURING
THE YEAR 1920.**

Causes of Death. (Civilians only.)	All ages		Under 1 year.	1 and under 2 yrs.	2 and under 5 yrs.	5 and under 15 yrs.	15 and under 25 yrs.	25 and under 45 yrs.	45 and under 65 yrs.	65 and upwards.
	Males.	Females.								
All causes ... ..	...	...	...	...	...	...	...	...	...	...
Enteric Fever ... ..	...	...	...	...	...	...	...	...	...	...
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...
Measles	3	1	2	2	...	...	...	...	...	...
Scarlet Fever	2	...	...	...	...	2	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	1	...	...	...	1	...	...	...	...	...
Influenza	1	3	...	...	...	...	...	3	1	...
Erysipelas ... ..	...	1	...	...	...	...	...	...	1	...
Pulmonary Tuberculosis	7	9	...	...	1	1	5	3	6	...
Tuberculous Meningitis ... ..	...	1	...	...	...	1	...	...	...	...
Other Tuberculous Diseases	1	1	...	...	...	1	...	1	...	...
Cancer, malignant disease	5	10	...	...	...	...	1	1	8	5
Rheumatic Fever ... ..	...	...	...	...	...	...	...	...	...	...
Meningitis ... ..	...	2	...	...	...	1	...	...	...	1
Organic Heart Disease	15	16	...	...	...	...	...	3	6	22
Bronchitis	16	16	10	4	2	1	1	3	5	6
Pneumonia (all forms)	12	9	...	...	...	...	2	4	7	8
Other Respiratory Diseases	5	1	...	...	...	...	...	...	2	4
Diarrhœa, &c., under 2 years.	3	2	3	2	...	...	...	...	...	...
Appendicitis and Typhlitis	1	...	...	...	...	...	...	...	1	...
Cirrhosis of Liver	1	...	...	...	...	...	...	...	1	...
Alcoholism ... ..	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease	3	1	...	...	...	...	...	...	1	3
Puerperal Fever ... ..	...	...	...	...	...	...	...	...	...	...
Parturition, apart from Puerperal Fever ... ..	...	3	...	...	...	...	...	3	...	...
Congenital Debility, &c.	11	9	20	...	...	...	...	...	...	...
Violence, apart from Suicide	9	3	1	...	2	...	2	1	4	2
Suicide	1	1	...	...	...	...	1	1	...	...
Other defined Diseases	33	30	13	...	...	3	3	10	13	21
Causes ill-defined or unknown	5	...	3	...	...	...	...	...	1	1
Totals	135	119	52	8	6	10	15	33	57	73

ANNUAL REPORT OF THE
MEDICAL OFFICER OF HEALTH FOR THE
YEAR 1920, FOR THE CITY OF DURHAM,
on the administration of the Factory and Workshop Act, 1901,
in connection with
Factories, Workshops, Workplaces and Homework.

1.—INSPECTION. Including Inspections made by Sanitary
Inspectors of Nuisances.

Premises.	Number of		
	Inspection.	Written Notices.	Prosecutions.
Factories (including Factory Laundries).	32	6	Nil
Workshops (including Workshop Laundries.)	212	31	...
Workplaces (Other than Outworkers' premises included in Part 3 of this Report)	2	Nil	...
Total	246	37	Nil

2.—DEFECTS FOUND.

Particulars.	Number of Defects.		Number of Prosecutions.
	Found.	Remedied.	
Nuisances under the Public Health Acts—			
Want of cleanliness	16	16	Nil
Other nuisances	15	15	...
Sanitary accommodation—			
Insufficient	3	3	...
Unsuitable or defective	7	7	...
Total	41	41	Nil

3—HOME WORK.

Nature of Work.	Outworkers' Lists, Section 107.		
	Lists received from Employers.		
	Once in the year.		
	Lists.	Outworkers.	
		Contrac- tors.	Work- men.
Wearing Apparel—Making, &c ..	I	I	I

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	Number.
Workshops and Factories	172
Bakehouses	22
Laundries	2
Total number of Workshops on Register ...	196

5.—OTHER MATTERS.

Class.	Number.
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Acts (s. 5 1901)	
Notified by H.M. Inspector	6
Reports (of action taken) sent to H.M. Inspector ...	6
Other	12
Underground Bakehouses (s. 101) in use at end of year	1

A B. MITCHELL, M.B.,

18th April, 1921.

Medical Officer of Health.